

70-5

NOV 16 1914



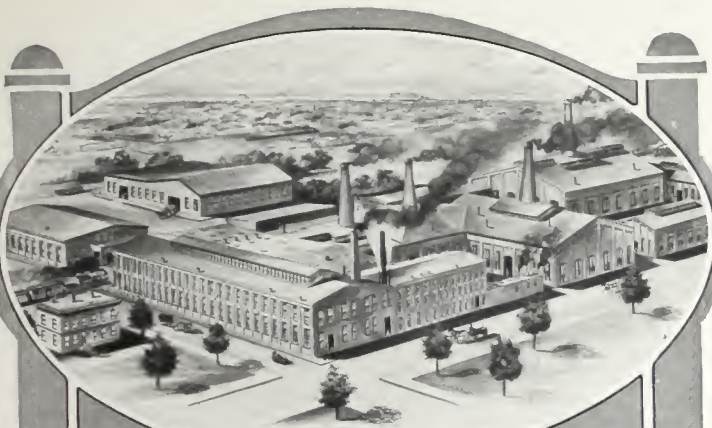
PARIAN
ILLUMINATING
GLASSWARE



971 6344 744

Gill Brothers
Company

Steubenville
Ohio, U. S. A.



PARIAN GLASS
GILL BROS.CO.

Factories STEUBENVILLE, OHIO
and TORONTO, OHIO
Manufacturers of
GLASSWARE
for **ILLUMINATING**
PURPOSES. —



Established 1874.

CHICAGO OFFICE
 MALLERS BLDG.,
 WABASH & MADISON STS.

NEW YORK OFFICE
 PARA BUILDING
 33-35 WARREN ST.

Gill Brothers Company

EXPLANATION

#406 Series comprises bowl type Reflector-Shades

#410 Series comprises flared type Reflector-Shades

A in all series indicates size for 25-Watt Lamp

B	"	"	"	"	"	"	40	"	"
---	---	---	---	---	---	---	----	---	---

C	"	"	"	"	"	"	60	"	"
---	---	---	---	---	---	---	----	---	---

D	"	"	"	"	"	"	100	"	"
---	---	---	---	---	---	---	-----	---	---

E	"	"	"	"	"	"	150	"	"
---	---	---	---	---	---	---	-----	---	---

F	"	"	"	"	"	"	250	"	"
---	---	---	---	---	---	---	-----	---	---

G	"	"	"	"	"	"	500	"	"
---	---	---	---	---	---	---	-----	---	---

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

ILLUMINATING GLASSWARE

PARIAN is the latest product and represents the highest state of the art of semi-translucent glassmaking. It takes its name from the celebrated **PARIAN MARBLE**, which it resembles in appearance.

PARIAN Glass is uniform in color, texture, and finish.

It possesses great reflecting power accompanied with perfect diffusion and with minimum absorption of light.

It produces a beautiful, soft, effective white light, with an entire absence of glare.

PARIAN Glass is made in Reflector-Shades, Globes, Spheres, Hemispheres, Street Lighting Balls, Classic Bowls for semi-indirect lighting, and in other designs where artistic and up-to-date lighting is required.

STEUBENVILLE, OHIO, U. S. A.

Page Five

Gill Brothers Company

PARIAN

No. 406 A Reflector-Shade

For 25-Watt Mazda or Tungsten Lamp
Fitter, $2\frac{1}{4}$ "; Height, $3\frac{3}{4}$ "; Diameter, $5\frac{1}{4}$ ".
Form "O" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet									
	6	7	8	9	10	11	12	13	14	15
6	2.5	2	1.5	1	0.5	0.5	0.5	0.5	0.5	0.5
	2.5	2	1.5	1	1	1	1	1	0.5	0.5
7	2	2	1.5	1	0.5	0.5	0.5	0.5	0.5	0.5
	2.5	2	1.5	1	1	1	1	1	0.5	0.5
8	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1.5	1	1	1	1	1	0.5	0.5
9	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1.5	1	1	1	0.5	0.5	0.5	0.5
10	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1.5	1	1	1	0.5	0.5	0.5	0.5
11	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5
12	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5
13	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1	1	1	1	0.5	0.5	0.5	0.5
14	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5
15	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

406 A

Box 1 doz. 15c each

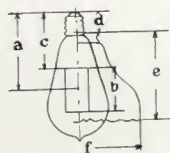
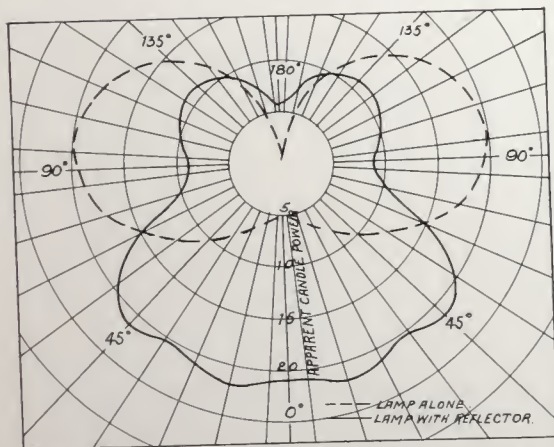
Barrel 4 doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



NO. 406 A.
25 WATT LAMP.



Dimensions of
Lamp and
Auxiliary.

a	.....	.31/4	In.
b	.....	1 1/2	"
c	.....	2 1/2	"
d	.....	1 3/8	"
e	.....	3 3/4	"
f	.....	5 1/4	"

Photometric Dis-
tance:—10 feet.

Mean vertical distribution of light from Parian Re-
flector Shade No 406A with 25-watt bowl frosted Tung-
sten Lamp. Tests by Electrical Testing Laboratories,
New York.

CONDITIONS:
Lamp and re-
flector rotated dur-
ing test.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

No. 406 B Reflector-Shade.

For 40-Watt Mazda or Tungsten Lamp
Fitter, $2\frac{1}{4}$ "; Height, $4\frac{3}{4}$ "; Diameter, $5\frac{3}{4}$ ".

Form "O" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet										
	8	9	10	11	12	13	14	15	16	18	20
6	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5		
	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
7	2	1.5	1	1	0.5	0.5	0.5	0.5	0.5		
	2	2	1.5	1.5	1.5	1	1	1	1	1	1
8	2	1.5	1	1	1	0.5	0.5	0.5	0.5		
	2	1.5	1.5	1.5	1	1	1	1	1	1	1
9	2	1.5	1	1	1	0.5	0.5	0.5	0.5		
	2	1.5	1.5	1	1	1	1	0.5	0.5	0.5	0.5
10	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	2	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
11	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	2	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5
12	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	1.5	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5
13	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	1.5	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5
14	2	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	1.5	1.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5
15	1.5	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	
	1.5	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

406 B

Box 1 doz. 15c each

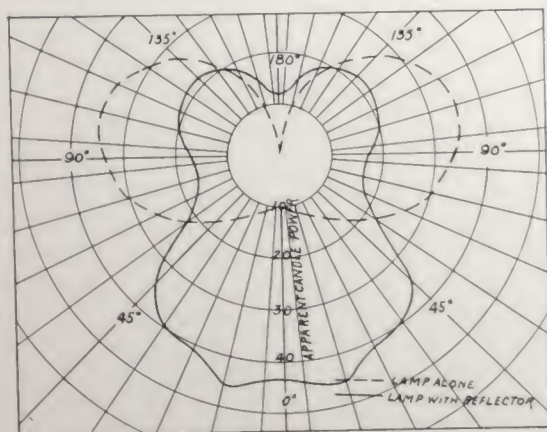
Barrel 4 doz 50c each

STEUBENVILLE, OHIO, U. S. A.

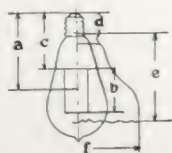
Gill Brothers Company



NO. 406 B.
40 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 406B with 40-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	3 3/8	In.
b	.....	1 1/8	"
c	.....	2 1/8	"
d	.....	1 1/2	"
e	.....	4 1/4	"
f	.....	5 3/4	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

No. 406 C Reflector-Shade.

For 60-Watt Mazda or Tungsten Lamp

Fitter, $2\frac{1}{4}$ "; Height, $5\frac{5}{16}$ "; Diameter, $7\frac{1}{8}$ ".

Form "H" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet								
	8	9	10	11	12	13	14	15	16
6	3.5	3	2	1.5	1	1	1	0.5	0.5
	4	3.5	2.5	2.5	2	2	2	2	2
7	3.5	3	2	1.5	1.5	1	1	0.5	0.5
	3.5	3.5	2.5	2.5	2	2	1.5	1.5	1.5
8	3.5	2.5	2	2	1.5	1.5	1	1	0.5
	3.5	3	2.5	2	2	1.5	1.5	1	1
9	3.5	2.5	2	2	1.5	1.5	1	1	0.5
	3.5	3	2.5	2	1.5	1.5	1	1	1
10	3.5	2.5	2	2	1.5	1.5	1	1	0.5
	3.5	3	2	2	1.5	1.5	1	1	1
11	3	2.5	2	2	1.5	1.5	1	1	1
	3	2.5	2	2	1.5	1.5	1	1	1
12	3	2.5	2	2	1.5	1.5	1	1	1
	3	2.5	2	2	1.5	1.5	1	1	1
13	3	2.5	2	2	1.5	1.5	1	1	1
	3	2.5	2	2	1.5	1.5	1	1	1
14	3	2.5	2	1.5	1.5	1	1	1	1
	3	2.5	2	1.5	1.5	1	1	1	1
15	3	2.5	2	1.5	1.5	1	1	1	1
	3	2	2	1.5	1.5	1	1	1	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

406 C

Box 1 doz. 20c each

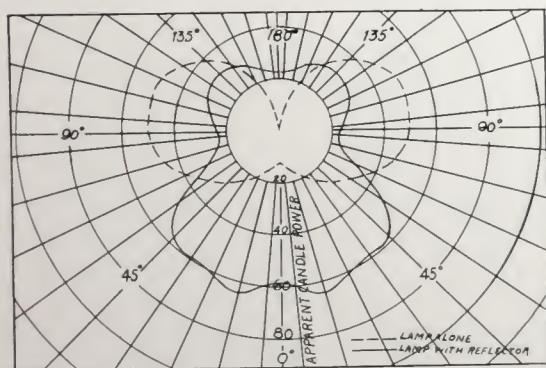
Barrel 3 doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

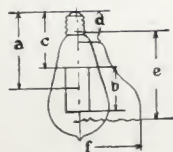
Gill Brothers Company



NO. 406 C.
60 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 406C with 60-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	4 5/8	In.
b	.....	1 1/8	"
c	.....	3 3/8	"
d	.....	1 1/8	"
e	.....	5 5/16	"
f	.....	7 1/8	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO. U. S. A.

Gill Brothers Company

PARIAN

No. 406 D Reflector-Shade.

For 100-Watt Mazda or Tungsten Lamps

Fitter, $2\frac{1}{4}$ " ; Height, 6" ; Diameter, 8".

Form "H" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet									
	9	10	11	12	13	14	15	16	18	20
7	4	3.5	2.5	2	1.5	1.5	1	1	1	0.5
	5	4.5	4	3.5	3.5	3.5	3.5	3	3	2.5
8	4	3.5	3	2	2	1.5	1	1	1	0.5
	4.5	4	3.5	3.5	3	3	3	2.5	2	2
9	4	3.5	3	2	2	1.5	1	1	1	0.5
	4.5	4	3.5	3	2.5	2.5	2	2	2	2
10	4	3.5	3	2	2	1.5	1	1	1	0.5
	4	4	3.5	3	2.5	2.5	2	2	1.5	1.5
11	4	3.5	3	2	2	1.5	1	1	1	0.5
	4	4	3	2.5	2.5	2	2	2	1.5	1.5
12	4	3.5	3	2	2	1.5	1.5	1.5	1	1
	4	4	3	2.5	2.5	2	1.5	1.5	1	1
13	4	3.5	3	2	2	1.5	1.5	1.5	1	1
	4	4	3	2.5	2.5	2	1.5	1.5	1	1
14	4	3.5	3	2	2	1.5	1.5	1.5	1	1
	4	4	3	2.5	2.5	2	1.5	1.5	1	1
15	3.5	3	2.5	2	2	1.5	1.5	1.5	1.5	1
	4	3.5	3	2.5	2.5	2	1.5	1.5	1.5	1
16	3.5	3	2.5	2	2	1.5	1.5	1.5	1.5	1
	3.5	3.5	3	2.5	2.5	2	1.5	1.5	1.5	1
17	3.5	3	2.5	2	2	1.5	1.5	1.5	1.5	1
	3.5	3.5	3	2.5	2.5	2	1.5	1	1	1
18	3.5	3	2.5	2	2	1.5	1.5	1.5	1	1
	3.5	3.5	3	2	2	1.5	1.5	1	1	1
19	3.5	3	2.5	2	2	1.5	1.5	1.5	1	1
	3.5	3.5	3	2	2	1.5	1.5	1	1	1
20	3.5	3	2.5	2	2	1.5	1.5	1.5	1	1
	3.5	3	2.5	2	2	1.5	1	1	0.5	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

406 D

Box $\frac{2}{3}$ doz. 25c each

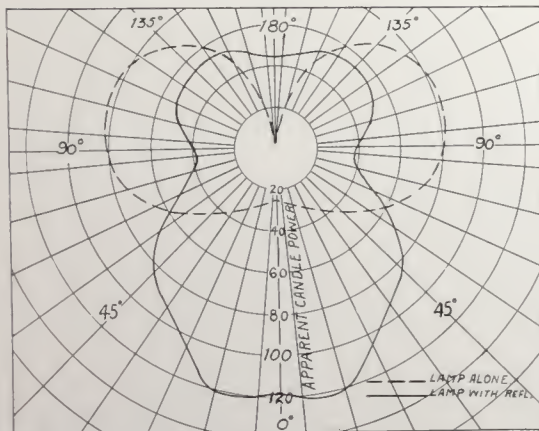
Barrel 2 doz. 50c each

STEUBENVILLE, OHIO. U. S. A.

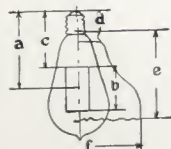
Gill Brothers Company



NO. 406 D.
100 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 406D with 100-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	47 ⁷ / ₈	In.
b	.....	2 ³ / ₄	"
c	.....	3 ⁹ / ₁₆	"
d	.....	1 ¹ / ₁₆	"
e	.....	.6	"
f	.....	.8	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE. OHIO. U. S. A.

Gill Brothers Company

PARIAN

No. 406 F Reflector-Shade.

For 250-Watt Mazda or Tungsten Lamps

Fitter, $3\frac{1}{4}$ " ; Height, $7\frac{5}{8}$ " ; Diameter, 12".

Form "A" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet										
	10	11	12	13	14	15	16	18	20	22	24
8	11	9	7.5	6	5.5	5	4	3	2.5	2	1.5
	16.5	12	9.5	8.5	7.5	7	6.5	5.5	5	5	5
9	11	9	7.5	6	5.5	5	4	3	2.5	2	1.5
	14	11.5	9	8.5	7	7	6	5.5	4.5	4.5	4
10	11	9	7.5	6.5	5.5	5	4.5	3	2.5	2	1.5
	12.5	11	8.5	8	7	7	5.5	5	4	4	3.5
11	11	9	8	7	6	5	4.5	3	3	2	1.5
	11.5	10	8.5	7.5	6.5	6.5	5	4	3.5	3.5	3
12	10.5	9	8	7	6	5	4.5	3	3	2	2
	11	9.5	8.5	7	6.5	6	5	4	3.5	3	2.5
13	10	9	8	7	6	5	4.5	3	3	2	2
	11	9.5	8.5	7	6	6	5	4	3.5	3	2.5
14	10.5	9	7.5	7	6	5	4.5	3.5	3	2	2
	11	9.5	8.5	7.5	6	6	5	4	3.5	3	2.5
15	10	9	7.5	6.5	6	5.5	5	3.5	3	2.5	2
	11	9.5	8.5	7.5	6	5.5	5	4	3	2.5	2.5
16	10	9	7.5	6.5	6	5.5	5	4	3	2.5	2
	10.5	9.5	8.5	7.5	6	5.5	4.5	4	3	2.5	2
17	10	9	7.5	6.5	6	5.5	5	4	3	2.5	2
	10.5	9.5	8.5	7	6	5.5	4.5	4	3	2.5	2
18	9.5	9	7	6.5	5.5	5	4.5	3.5	3	2.5	2
	10.5	9	8	7	6	5	4.5	4	3	2.5	2
19	9.5	8.5	7	6	5.5	5	4.5	3.5	2.5	2	1.5
	10	9	8	7	6	5	4.5	3.5	3	2.5	2
20	9	8	7	6	5.5	5	4.5	3.5	2.5	2	1.5
	9.5	8.5	7.5	7	6	5	4.5	3.5	3	2.5	2

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

406 F

Crate $\frac{1}{3}$ doz. 35c each

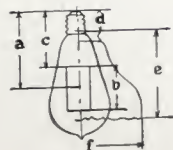
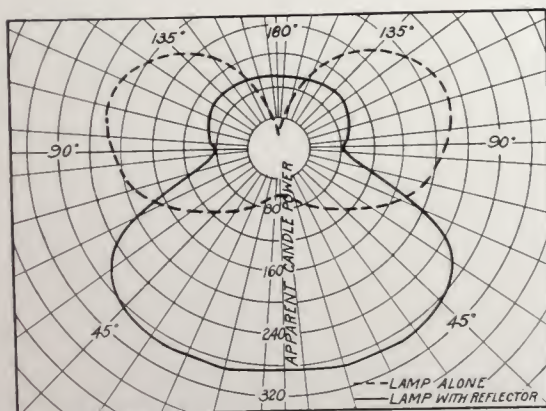
Barrel $\frac{1}{2}$ doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



NO. 406 F.
250 WATT LAMP.



Dimensions of
Lamp and
Auxiliary.

a	.....	.63 ³ / ₈	In.
b	.....	.31 ¹ / ₄	"
c	.....	.43 ¹ / ₂	"
d	.....	.19 ⁵ / ₈	"
e	.....	.73 ³ / ₈	"
f	.....	.12	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

Mean vertical distribution of light from Parian Reflector Shade No. 406F with 250-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

No. 406 G Reflector-Shade.

For 400-500-Watt Mazda or Tungsten Lamps

Hole, $2\frac{1}{4}$ " ; Height, 9" ; Diameter, 14".

To be used with Metal Holder.

SHIPPING CONTAINERS

406 G

Crate $\frac{1}{4}$ doz. 40c each

Barrel $\frac{1}{4}$ doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



NO. 406 G.

400-500 WATT LAMP.

Photometric Curves upon request.

STEUBENVILLE, OHIO, U. S. A.

Page Seventeen

Gill Brothers Company

PARIAN

No. 410 B Reflector-Shade.

For 40-Watt Mazda or Tungsten Lamps
Fitter, $2\frac{1}{4}$ "; Height, $3\frac{1}{4}$ "; Diameter, $7\frac{3}{16}$ ".
Form "O" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet								
	8	9	10	11	12	13	14	15	16
6	2.5	2	2	1.5	1	1	0.5	0.5	0.5
	3.5	3	2.5	2	2	2	1.5	1.5	1.5
7	2.5	2	2	1.5	1	1	0.5	0.5	0.5
	3	2.5	2	2	1.5	1.5	1.5	1.5	1.5
8	2.5	2	2	1.5	1	1	1	0.5	0.5
	3	2.5	2	1.5	1.5	1	1	1	1
9	2.5	2	2	1.5	1	1	1	0.5	0.5
	2.5	2	2	1.5	1.5	1	1	1	1
10	2.5	2	1.5	1.5	1	1	1	0.5	0.5
	2.5	2	1.5	1.5	1.5	1	1	1	1
11	2	2	1.5	1.5	1	1	1	0.5	0.5
	2.5	2	1.5	1.5	1	1	1	1	0.5
12	2	2	1.5	1.5	1	1	1	0.5	0.5
	2.5	2	1.5	1.5	1	1	1	1	0.5
13	2	2	1.5	1.5	1	1	1	0.5	0.5
	2.5	2	1.5	1.5	1	1	1	1	0.5
14	2	2	1.5	1	1	1	0.5	0.5	0.5
	2.5	2	1.5	1	1	1	1	0.5	0.5
15	2	2	1.5	1	1	1	0.5	0.5	0.5
	2	2	1.5	1	1	1	0.5	0.5	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

410 B

Box 1 doz. 15c each

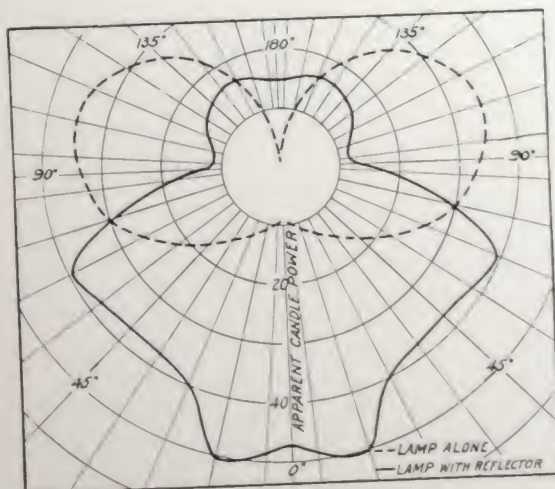
Barrel $4\frac{1}{2}$ doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

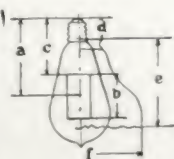
Gill Brothers Company



NO. 410 B.
40 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 410B with 40-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	3 1/2	In.
b	.....	1 1/2	"
c	.....	2 1/2	"
d	.....	1 1/2	"
e	.....	3 1/2	"
f	.....	7 1/2	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

No. 410 C Reflector-Shade.

For 60-Watt Mazda or Tungsten Lamps
Fitter, $2\frac{1}{4}$ "; Height, $3\frac{5}{8}$ "; Diameter, 9".

Form "H" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet										
	8	9	10	11	12	13	14	15	16	18	20
6	4.5	3.5	2.5	2	1.5	1.5	1	1	1	1	0.5
	4.5	4	3.5	3	3	2.5	2.5	2	2	2	2
7	4.5	3.5	2.5	2	2	1.5	1	1	1	1	0.5
	4.5	3.5	3	2.5	2.5	2.5	2	2	2	1.5	1.5
8	4	3	2.5	2	2	1.5	1	1	1	1	0.5
	4	3.5	3	2.5	2	1.5	1.5	1.5	1.5	1	1
9	4	3	2.5	2	2	1.5	1.5	1	1	1	0.5
	4	3.5	3	2.5	2	1.5	1.5	1.5	1.5	1	1
10	4	3	2.5	2	2	1.5	1.5	1	1	1	0.5
	4	3.5	2.5	2.5	2	1.5	1.5	1.5	1.5	1	1
11	4	3	2.5	2	2	1.5	1.5	1	1	1	0.5
	3.5	3	2.5	2.5	2	1.5	1.5	1.5	1.5	1	1
12	3.5	3	2.5	2	2	1.5	1.5	1	1	1	0.5
	3.5	3	2.5	2	2	1.5	1.5	1	1	1	0.5
13	3.5	3	2	2	2	1.5	1.5	1	1	1	0.5
	3.5	3	2.5	2	2	1.5	1.5	1	1	1	0.5
14	3	2.5	2	2	2	1.5	1.5	1	1	1	0.5
	3.5	3	2.5	2	2	1.5	1.5	1	1	1	0.5
15	3	2.5	2	2	1.5	1.5	1	1	1	0.5	0.5
	3	3	2.5	2	1.5	1.5	1.5	1	1	1	0.5

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

410 C

Box 1 doz. 20c each

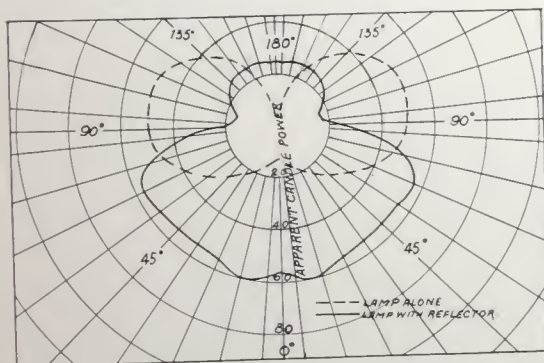
Barrel $3\frac{1}{2}$ doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

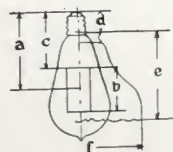
Gill Brothers Company



NO. 410 C.
60 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 410C with 60-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	4 3/4	In.
b	.....	1 1/8	"
c	.....	3 1/2	"
d	.....	1 1/4	"
e	.....	3 5/8	"
f	.....	9	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

No. 410 D Reflector-Shade.

For 100-Watt Mazda or Tungsten Lamps

Fitter, $2\frac{1}{4}$ "; Height, $4\frac{1}{4}$ "; Diameter, 11".

Form "H" Holder.

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet									
	10	11	12	13	14	15	16	18	20	22
7	4.5	4	3.5	3	2.5	2	2	1	0.5	0.5
	6	5.5	5	4.5	4	4	3.5	3	3	3
8	4.5	4	3.5	3	2.5	2	2	1	1	1
	5.5	5	4.5	4	3.5	3.5	3	3	3	3
9	4.5	4	3.5	3	2.5	2	2	1.5	1	1
	5	4.5	4	3.5	3	3	2.5	2.5	2	2
10	4.5	4	3.5	3	2.5	2	2	1.5	1	1
	5	4.5	4	3.5	3	3	2.5	2	2	1.5
11	4	4	3	3	2.5	2	2	1.5	1	1
	4.5	4	4	3.5	2.5	2.5	2.5	2	2	1.5
12	4	4	3	3	2.5	2	2	1.5	1	1
	4.5	4	3.5	3	2.5	2.5	2	2	1.5	1.5
13	4	4	3	3	2.5	2	2	1.5	1	1
	4	4	3.5	3	2.5	2.5	2	1.5	1.5	1.5
14	4	4	3	3	2.5	2	2	1.5	1	1
	4	4	3.5	3	2.5	2.5	2	1.5	1.5	1
15	4	3.5	3	2.5	2	2	2	1.5	1	1
	4	3.5	3.5	3	2.5	2.5	2	1.5	1.5	1
16	3.5	3.5	3	2.5	2	2	2	1.5	1	1
	4	3.5	3	3	2.5	2	2	1.5	1	1
17	3.5	3.5	3	2.5	2	2	2	1.5	1	1
	3.5	3.5	3	3	2.5	2	2	1.5	1	1
18	3.5	3.5	3	2.5	2	2	2	1.5	1	1
	3.5	3.5	3	3	2	2	2	1.5	1	1
19	3.5	3.5	2.5	2.5	2	2	1.5	1.5	1	1
	3.5	3	2.5	2.5	2	2	2	1.5	1	1
20	3	3	2.5	2.5	2	2	1.5	1.5	1	1
	3.5	3	2.5	2.5	2	2	1.5	1.5	1	1

For explanation of tables and intensity of illumination required for different purposes see pages 32-35.

SHIPPING CONTAINERS

410 D

Box 1 doz. 35c each

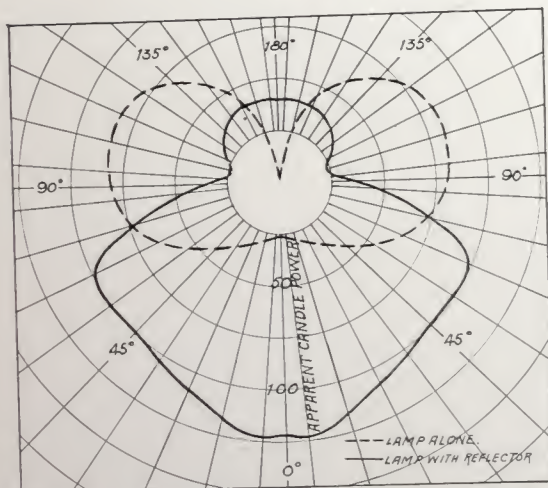
Barrel 2 doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

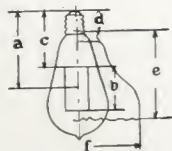
Gill Brothers Company



NO. 410 D.
100 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 410D with 100-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	$4\frac{7}{8}$	In.
b	.....	$2\frac{3}{4}$	"
c	.....	$3\frac{8}{16}$	"
d	.....	$1\frac{1}{8}$	"
e	.....	$4\frac{1}{4}$	"
f	.....	11	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO. U. S. A.

Gill Brothers Company

PARIAN

No. 410 E Reflector-Shade.

For 150-Watt Mazda or Tungsten Lamps

Fitter $3\frac{1}{4}$ " ; Height, $5\frac{3}{8}$ " ; Diameter, 11".

Form "A" Holder

TABLE

Showing the foot-candles of illumination produced by this unit at different heights and spacing, under conditions given on page 32.

Calculations by Electrical Testing Laboratories, New York.

Mounting Height Feet	Distance Between Units in feet											
	10	11	12	13	14	15	16	18	20	22	24	
8	6	5	4	3.5	3.5	3	2.5	2	1.5	1	1	
	7.5	6.5	6	5	4.5	4	4	3.5	3	3	3	
9	6	5	4	3.5	3.5	3	2.5	2	1.5	1	1	
	7	6	5.5	5	4.5	4	3.5	3	3	2.5	2.5	
10	6	5	4	3.5	3	3	2.5	2	1.5	1	1	
	6.5	6	5	4.5	4	4	3.5	3	2.5	2.5	2	
11	6	5	4	3.5	3	3	2.5	2	1.5	1	1	
	6.5	6	5	4.5	4	3.5	3	2.5	2.5	2	2	
12	6	5	4	3.5	3	3	2.5	2	1.5	1	1	
	6	5.5	5	4	3.5	3.5	3	2.5	2	2	1.5	
13	5.5	5	4	3.5	3	3	2.5	2	1.5	1	1	
	6	5.5	4.5	4	3.5	3.5	3	2.5	2	2	1.5	
14	5.5	5	4	3.5	3	3	2.5	2	1.5	1	1	
	6	5	4.5	4	3.5	3.5	2.5	2	2	1.5	1	
15	5.5	4.5	4	3.5	3	3	2.5	2	1.5	1	1	
	5.5	5	4.5	4	3.5	3.5	2.5	2	2	1.5	1	
16	5	4.5	4	3.5	3	2.5	2.5	2	1.5	1	1	
	5.5	5	4	3.5	3	3	2.5	2	1.5	1.5	1	
17	5	4.5	4	3.5	3	2.5	2.5	2	1.5	1	1	
	5	5	4	3.5	3	3	2.5	2	1.5	1.5	1	
18	4.5	4.5	4	3.5	3	2.5	2.5	2	1.5	1	1	
	5	5	4	3.5	3	3	2.5	2	1.5	1.5	1	
19	4.5	4.5	3.5	3	3	2.5	2.5	2	1.5	1	1	
	5	4.5	4	3.5	3	3	2.5	1.5	1.5	1.5	1	
20	4.5	4	3.5	3	3	2.5	2.5	2	1.5	1	1	
	5	4	3.5	3.5	3	2.5	2.5	1.5	1.5	1.5	1	

For explanation of tables and intensity of illumination required for different purposes see pages 22-25.

SHIPPING CONTAINERS

410 E

Crate $\frac{1}{2}$ doz. 25c each

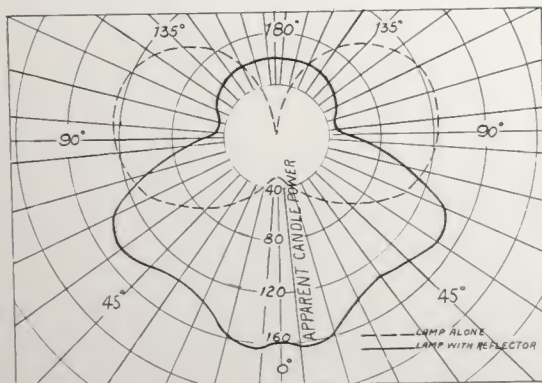
Barrel $\frac{1}{2}$ doz. 50c each

STEUBENVILLE, OHIO, U. S. A.

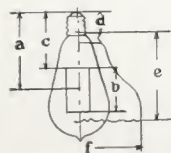
Gill Brothers Company



NO. 410 E.
150 WATT LAMP.



Mean vertical distribution of light from Parian Reflector Shade No. 410E with 150-watt bowl frosted Tungsten Lamp. Tests by Electrical Testing Laboratories, New York.



Dimensions of
Lamp and
Auxiliary.

a	.....	.53/4	In.
b	.....	3 1/2	"
c	.....	3 3/4	"
d	.....	1 5/4	"
e	.....	.53/8	"
f	.....	.11	"

Photometric Distance:—10 feet.

CONDITIONS:

Lamp and reflector rotated during test.

STEUBENVILLE, OHIO. U. S. A.

Gill Brothers Company



PARIAN Hemisphere

No. 415. Diameter 10 inches Depth 5 inches

No. 416. Diameter 12 inches Depth 6 inches

No. 417. Diameter 14 inches Depth 7 inches

No. 418. Diameter 16 inches Depth 8 inches

SHIPPING CONTAINERS

No.	Inches			Each			Each
415	10	Crate	$\frac{1}{2}$ doz.	35c	Barrel	$\frac{2}{3}$ doz.	50c
416	12	"	$\frac{1}{3}$ "	40c	"	$\frac{1}{3}$ "	50c
417	14	"	$\frac{1}{3}$ "	45c	"	$\frac{1}{3}$ "	50c
418	16	"	$\frac{1}{4}$ "	45c			

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



PARIAN Sphere

No. 419	Diameter	10	inches
No. 420	"	12	"
No. 421	"	14	"
No. 422	"	16	"

SHIPPING CONTAINERS

No.	Inches		Each		Each
419	10	Crate 1/6 doz.	35c	Barrel 1/6 doz.	50c
420	12	" 1/6 "	40c	" 1/6 "	50c
421	14	" 1/6 "	45c		
422	16	" 1/6 "	60c		

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

PARIAN

Units for Semi-Indirect Lighting



No. 433, Bowl, treated outside.

Diameter 16 inches, Depth $7\frac{1}{2}$ inches.

No. 434, Bowl, treated outside.

Diameter 21 inches, Depth 9 inches

Other sizes upon application.

STEUBENVILLE, OHIO, U. S. A.

Page Twenty-eight

Gill Brothers Company



No. 435

Side View Louis XV Bowl
Diameter 20 inches, Depth 8 inches



Obverse View Louis XV Bowl

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



No. 406 I **PARIAN** Gas Shade

For Inverted Mantle Lamps.

Diameter Top $3\frac{3}{4}$ inches, Bottom $6\frac{1}{8}$ inches, Depth $3\frac{3}{8}$ inches
Metal collar $3\frac{3}{8}$ inches



No. 410 I **PARIAN** Gas Shade

For Inverted Mantle Lamps.

Diameter Top $3\frac{3}{4}$ inches, Bottom $7\frac{1}{4}$ inches, Depth $3\frac{1}{2}$ inches
Metal collar $3\frac{3}{8}$ inches

SHIPPING CONTAINERS

406 I	Box 1 doz. 20c each.	Barrel 3 doz. 50c each
410 I	" 1 " 20c "	" 3 " 50c "

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company



Collar for Inverted Shade
Single piece



Acme Holder
for
Shades and Spheres

SHIPPING CONTAINERS

Box 1 doz. Band and Holders 25c each

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

HOW TO USE THE TABLES IN LAYING OUT A LIGHTING INSTALLATION.

In laying out a lighting installation some conditions are fixed and others must be determined. The tables in this catalogue afford a ready means of determining the size of lamp, type and number of reflector-shade, height to hang units above floor, and distance required between them to produce the best results with any desired intensity of illumination.

The figures in the column headed "Mounting height feet" give the height in feet of the unit above the floor, those across top of table the distance in feet between units. In the rows of figures opposite the numbers indicating the mounting height two figures are given; the lower figure gives the illumination in foot-candle intensity on the floor directly beneath the unit, and the upper figure the illumination on the floor at a point directly beneath the center of the square made by placing four units equally distant apart. For example, on page 22, if the units are hung ten feet above the floor and twelve feet apart, the illumination directly below the units will be 4 foot-candles and at a point directly beneath the centre of each square made will be 3.5 foot-candles.

The illumination values are given to the nearest half foot-candle, and are calculated on a basis of not less than 36 units placed at the corners of equal squares, no account being taken of reflection from side walls and ceilings.

In case of a long, narrow room requiring only one row of lamps, refer to the table specifying twice the foot-candles desired. If two rows of lamps are to be used refer to table specifying 50 per cent more foot-candles than desired. If three rows of lamps are to be used refer to table specifying 25 per cent more foot-candles than desired. These calculations are necessary in the above conditions, but if sixteen or more lamps are to be used, *uniformly spaced*, use the tables as described.

A table giving the intensities of illumination required for different purposes, compiled from the highest authorities, is given on pages 34 and 35. Some conception of an intensity of one foot-candle may be obtained by holding a 16 candle power electric lamp sidewise to a surface four feet away.

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Gill Brothers Company

The use of the tables may be best explained by the solution of a few typical problems. Let us suppose that we have a room 50 feet wide and 100 feet long, with a 15 foot ceiling; and assume that it is to be used as a dry goods store. We first turn to the table on page 35, and under "Store—Dry Goods," find the required illumination given as 3 to 5 foot-candles. This means that the illumination should at no place be less than 3, and need not be more than 5.

The variable conditions are now: the size of unit, the height, and the spacing. Let us suppose that the ceiling is divided into panels, or "bays," 10 feet square, and that there is one outlet in the center of each bay; this determines the spacing. We now refer to the tables, looking in the column marked 10 at the top to find the table which has in this column an intensity of 3 to 5 foot-candles. This appears on page 22, showing that the 410 D, using a 100-watt lamp, is the proper unit. If we wish to secure the maximum illumination required, 5 foot-candles, the unit can not be hung more than 10 feet above the floor. If it is decided that 4.5 foot-candles is sufficient, then it can be hung up to 12 feet; and if 4 foot-candles, it can be placed clear up to the ceiling, or 15 feet from the floor. Special conditions, such as the general color and texture of the goods, and the color of the ceiling and walls, will be considered in determining the intensity.

Let us now suppose that we have a room 40 by 60 feet, with 20 foot ceilings, to be used as a ballroom, and that we can space the units to suit. The intensity given for ballrooms is 2 to 3 foot-candles. We must next decide upon the size of unit to be used. Suppose we choose the 100-watt size. On page 4 we see that the 100-watt lamp takes the D series reflector shade. We must also decide upon the height; say we choose 15 feet from the floor. We now turn to the tables having D after the shade number, and look in the horizontal column of figures having 15 at the left for the 2 to 3 foot-candles intensity required. On page 12 we find that the No. 406 D unit will give 2.5 to 3 foot-candles spaced 11 feet apart. On page 22 we find by the same method that the 410 D unit will give the same intensity at 13 foot spacing. This unit is therefore the more economical, and the choice between these two units and spacings will depend upon considerations of appearance and economy.

We will take one other case. Suppose it is desired to use a four light chandelier in this ballroom instead of single units. Each of the four units on the chandelier will then furnish one-fourth of the intensity or .5 to 1 foot-candle. We find this intensity under the conditions given above on page 18, showing that four 410 B units with 40 watt lamps on this chandelier at 12 foot spacing will give the desired effect.

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

TABLE OF FOOT-CANDLE INTENSITIES RECOMMENDED FOR VARIOUS CLASSES OF SERVICE.

Arcade (in addition to light from show windows) . . . 1.0-1.5		Hospital—	
Armory	1.5-2.0	Corridors . . . . .	.5-1.0
Auditoriums	1.5-2.5	Wards (with no local il- lumination supplied) . . .	1.5-2.0
Ball Room	2.0-3.0	Wards (with local illum- ination supplied) . . . .	.5-1.0
Bank (general)	2.0-3.0	Hotels—	
Bar Room	2.5-3.0	Bed Room	2.0-2.5
Barber Shop	3.0-4.0	Corridor . . . . .	.5-1.0
Bath (public)—		Dining Room	2.0-3.0
Dressing Rooms	1.0-2.0	Lobby	2.0-3.0
Swimming Pool	1.5-2.0	Writing Room	2.5-3.0
Billiard Room—		Lavatory	2.5-3.0
General	1.0-2.0	Laundry	2.0-3.0
Table	4.0-5.0	Library—	
Bookkeeping	3.0-4.0	Stock Room	1.5-2.0
Cafe	2.0-3.0	Reading Room (with no local illumination sup- plied)	3.5-4.0
Card Room (tables)	2.0-3.0	Reading Room (with lo- cal illumination sup- plied)	1.0-2.0
Cars—		Lodge Room	2.0-2.5
Day Coach	2.0-2.5	Lunch Room	2.0-3.0
Dining	2.0-2.5	Moving Picture Theatre . .	1.0-1.5
Pullman	2.0-2.5	Museum	2.5-3.0
Street	2.0-2.5	Office—	
Corridors . . . . .	.5-1.0	File Room	2.5-3.0
Courts—		Desk	3.0-4.0
Handball	5.0-7.0	General (no drop lights) .	3.0-4.0
Squash	5.0-7.0	General (with drop lights)	1.5-2.0
Tennis	5.0-7.0	Vault (safe)	2.5-3.0
Court Room	2.0-2.5	Vault (storage)	1.0-2.0
Church	2.0-2.5	Pool Room (general)	2.0-2.5
Dance Hall	2.0-2.5	Pool Table	5.0-6.0
Depot—		Press Room	3.0-4.0
Baggage Room	1.0-2.0	Residence—	
Waiting Room	2.0-2.5	Porch	1.0-2.0
Drafting Room	7.0-8.0	Hall (entrance)	1.0-1.5
Engraving	8.0-10.0	Reception Room	1.5-2.0
Fire Stations—			
At Alarm	2.0-3.0		
At other times	1.0-1.5		
Garage	1.5-2.0		
Gymnasium	2.0-2.5		
Hallways . . . . .	.5-1.0		

STEUBENVILLE, OHIO, U. S. A.

Gill Brothers Company

Parlor	1.5-2.0	Department (see each department).	
Living Room	2.0-3.0	Drugs	3.0-4.0
Library	2.0-3.0	Dry Goods	3.0-5.0
Music Room	2.0-3.0	Florist	3.0-4.0
Dining Room	1.5-2.0	Furniture	3.0-5.0
Pantry	2.0-2.5	Furrier	5.0-6.0
Kitchen	2.0-3.0	Grocery	2.5-3.0
Laundry	1.5-2.0	Haberdasher	5.0-6.0
Hall (upstairs) . . . . .	.5-1.0	Hardware	4.0-4.5
Bed Room	2.0-2.5	Hat	4.0-5.0
Bath Room	1.5-2.0	Jewelry	3.5-4.0
Furnace Room . . . . .	.5-1.0	Lace	3.0-3.5
Store Room . . . . .	.5-1.0	Leather	3.5-4.0
Restaurant	2.0-3.0	Men's Furnishing	3.5-4.0
Rink (skating)	2.0-3.0	Millinery	3.5-4.0
Saloon	2.5-3.0	Music	3.0-3.5
School—		Notions	3.0-3.5
Assembly Room	2.0-2.5	Piano	3.5-4.0
Class Room	2.5-3.0	Post Cards	3.0-5.0
Cloak Room	1.0-1.5	Shoes	3.5-5.0
Corridor	1.0-1.5	Stationery	3.0-3.5
Drawing	4.0-5.0	Tailor	4.0-5.0
Laboratory	2.0-3.0	Tobacco	2.5-3.0
Manual Training	2.0-3.0	Studio	4.0-5.0
Office	2.5-3.0	Telephone Exchange (general)	2.5-3.0
Study Room	2.5-3.0	Theatre—	
Sewing (light goods)	3.0-4.0	Auditorium	2.0-2.5
Sewing (dark goods)	6.0-8.0	Lobby	2.5-3.0
Shipping Room	1.5-2.0	Typesetting	6.0-8.0
Stock Room	1.0-2.0	Warehouse . . . . .	.5-1.0
Store—		Weaving—	
Art	3.0-4.0	Cotton (light colors)	2.5-3.0
Baker	2.5-3.0	Cotton (dark colors)	4.0-5.0
Book	3.0-3.5	Wool (light colors)	2.5-3.0
Butcher	3.0-3.5	Wool (dark colors)	5.0-6.0
China	2.5-3.0	Silk (light colors)	3.0-4.0
Cigar	2.0-3.0	Silk (dark colors)	6.0-7.0
Clothing	6.0-8.0		
Cloak & Suit	5.0-7.0		
Confectionery	3.0-4.0		
Decorator	3.0-4.0		

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